

3.7 Noise

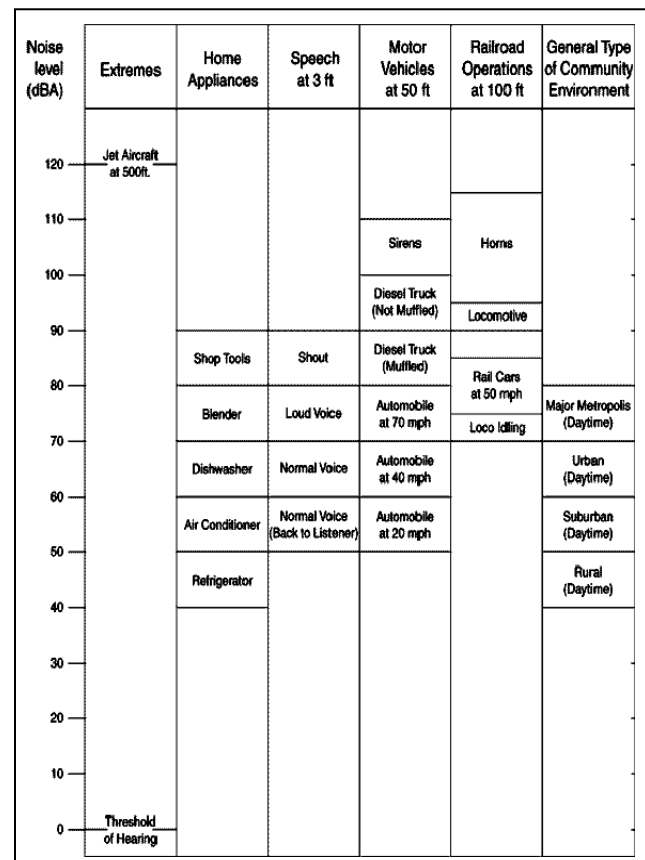
This section describes noise impacts resulting from site preparation, construction, and operation of the proposed Bohemia Subdivision Project, as described in Section 2.0 of this EIR. Environmental impacts related to noise generation and exposure are considered relative to short-term construction or temporary noise impacts and long-term operational and indirect impacts.

Background

Noise is unwanted sound, measured on a decibel scale to allow practical measurement and characterization. The decibel (dB) scale is adjusted for community noise impact assessment to consider the additional sensitivity to different pitches (through the A-weighting mechanism) and to consider the sensitivity during evening and nighttime hours (through the Community Noise Equivalent Level and Day-Night Average). **Figure 3.7-1** illustrates noise associated with common activities to describe how urban activities relate to numeric, decibel-level measurements.

Sound intensity decreases in proportion with the square of the distance from the source, assuming uniform atmospheric conditions and terrain. Generally, sound levels for a point source will decrease by six dB(A) for each doubling of distance from the source. Sound levels for a line source, such as a roadway, decrease by approximately three dB(A) for each doubling of distance. Soft surfaces, such as farmland and grass, result in a 4.5 dB(A)-decrease per doubling of distance for line sources.¹

Figure 3.7-1
Typical Noise Levels Associated with Various Activities



Source: Federal Railroad Administration, 2003.

Since decibels are logarithmic units, sound levels cannot be added arithmetically to yield a cumulative noise level of several different activities. Sound pressure level from two equal sources is approximately three decibels greater than the sound pressure level of just one source (**Table 3.7-1**). For example, two bulldozers producing 85 dB each will combine to produce 88 dB, rather than 170 dB. A three-dB

increase in the sound pressure level is barely detectable by the human ear. An increase of 10 dB in the sound pressure level is perceived as a doubling of sound intensity, and a 10 dB decrease is perceived as a halving of sound intensity.

Equivalent Sound Level

The equivalent sound level (L_{eq}) is derived by averaging several sound level measurements over a given time period, usually one, eight, or 24 hours. In certain locations, very loud events can occur intermittently, and an average or equivalent noise level is used to describe the overall noise environment.

Table 3.7-1
Decibel Addition

Difference between Sound Level of Sources	Amount Added to Higher of the Values
0 to 1	3
2 to 3	2
4 to 9	1
10 or more	0

Source: Federal Highway Administration, *Highway Traffic Noise and Abatement Policy and Guidance*. 1995.

Day-Night Average and Maximum Sound Level

The L_{dn} is based on the average noise level over a continuous 24-hour period, with a +10 dB weighting applied to noise occurring during nighttime (10 p.m. to 7 a.m.) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they are twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Maximum sound level is expressed as L_{max} , which is defined as the highest root mean space sound level measured over a period of time.

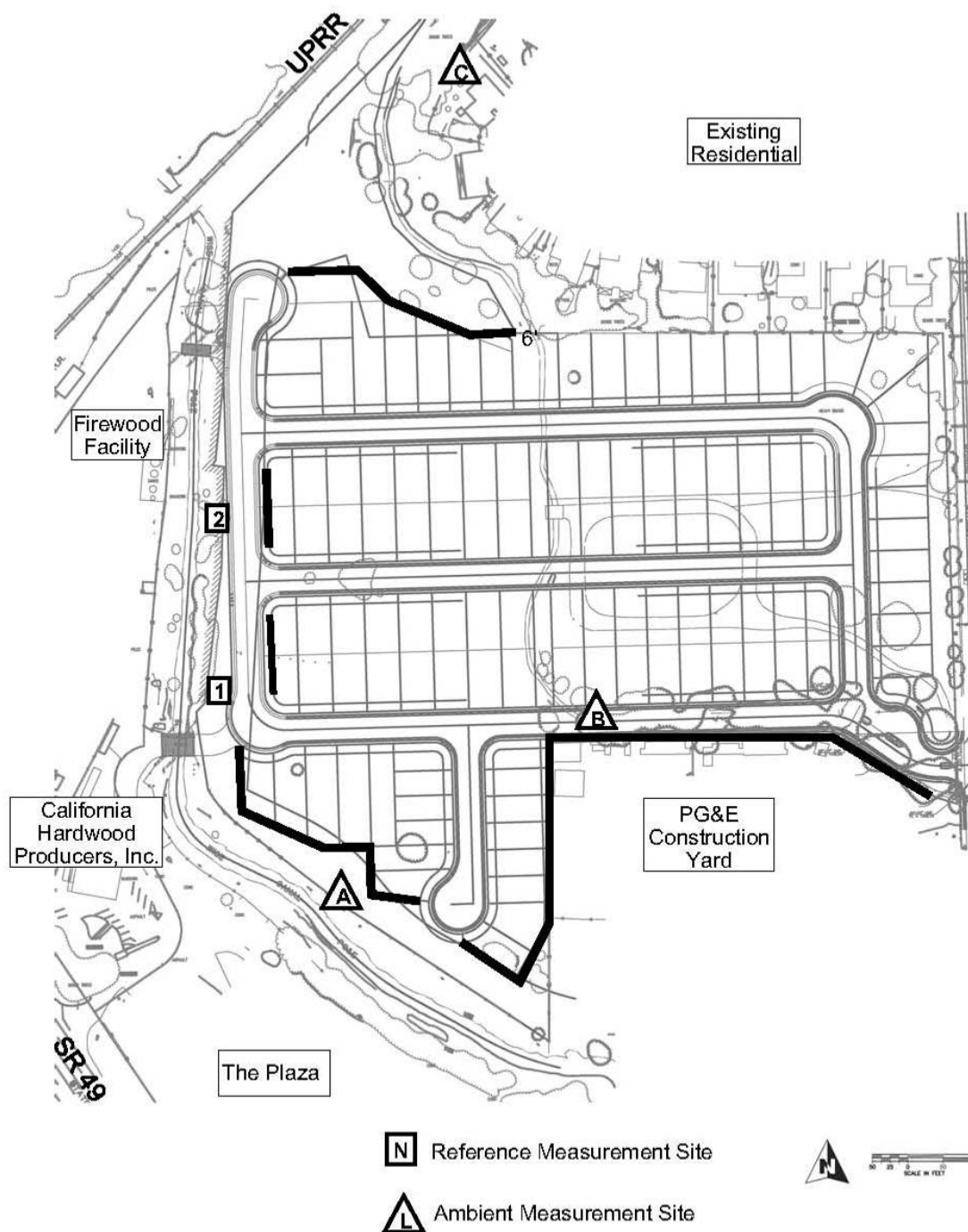
Environmental Setting

This area has rapidly developed during the relatively recent past, with former rural residential and agricultural properties being converted to urban residential, commercial, and civic land uses.

The Project site is located in an urban setting near State Highway 49 (S.R. 49). The primary existing ambient noise sources in the Project vicinity include vehicular traffic on S.R. 49, Union Pacific Railroad (UPRR) train operations north of the Project site, activities at the Pacific Gas & Electric (PG&E) construction yard to the south, and the commercial/light industrial facilities to the west. Noise-sensitive land uses in the immediate Project vicinity include existing single-family residences to the north and east.

To quantify the existing ambient noise environment in the Project vicinity, 24-hour ambient noise level measurements were conducted at three locations on, or in the vicinity of, the Project site. The noise measurement locations are shown in **Figure 3.7-2**.

In addition to the long-term (24-hour) measurements, short-term measurements were completed on the western portion of the Project site to document existing noise exposure from the two adjacent commercial/light industrial operations: California Hardwood Producers, Inc. and a firewood storage/retailing operation.



SOURCE: BOLLARD Acoustical Consultants, Adapted by P&D Consultants, 2005.

Figure 3.7-2
Noise Measurement Locations

State Route 49

To predict existing noise levels due to traffic on State Route 49, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model makes provision for noise factors associated with an identified mixture of automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. A day/night traffic distribution of 83%/17% was factored into the calculations to determine L_{dn} . Additionally, medium/heavy truck splits of 2%/1% and 1%/1% were used for SR 49 and other study roadways, respectively, along with traffic speeds of 30-45 MPH.

Traffic volumes for existing conditions were obtained from the Traffic Impact Study prepared for the project by Omni-Means Transportation Consultants (November 2005). The data within this report is in the form of PM peak-hour intersection turning movements, and was converted to average daily trips by Bollard Acoustical Consultants, Inc. staff.

Table 3.7-2 shows the existing traffic noise levels in terms of L_{dn} at a reference distance of 75 to 100 feet from the centerlines of existing Project-area roadways. **Table 3.7-2** also includes the distances to existing traffic noise contours.

Table 3.7-2
Existing Traffic Noise Levels

Roadway	Segment	L_{dn} dB @ 75' (100' for S.R. 49)	Distance to Contours (feet)		
			70 dB	65 dB	60 dB
S.R. 49	North of New Airport Road	69	82	177	380
	New Airport Road – Hulbert Way	69	92	198	426
	Hulbert Way – Luther Road	69	92	198	426
	South of Luther Road	69	87	188	406
Luther Road	West of S.R. 49	56	9	19	40
	S.R. 49 – Canal Street	61	18	39	84
	Canal Street – Taylor Lane	60	16	35	76
	Taylor Lane – Dairy Road	60	17	37	81
	East of Dairy Road	60	17	36	77
Canal Street	North of Luther Road	53	5	11	24
	South of Luther Road	43	1	3	6

Source: Bollard Acoustical Consultants, Inc., August 2005.

Railroad

As described above, the Project site is directly adjacent to a branch of the UPRR along the northwest property boundary. Long-term (24-hours) noise measurements at Site C, approximately 120 feet from the centerline of the tracks, recorded a total of eight train events (5 daytime/3

nighttime) during the measurement period. The calculated noise exposure from train events at this measurement site was approximately 68 dB L_{dn} at 120 feet from the centerline of the tracks, and accounts for a majority of the existing ambient noise exposure measured at this site.

PG&E Construction Yard

The Project site is adjacent and to the north of a PG&E construction/corporation yard. The yard is used by several different PG&E departments (e.g., Hydro Construction, General Construction [GC] Line, Equipment Maintenance, GC Gas, Paint, Administration, etc.), and operations can vary from day-to-day on the site. Measured maximum levels (L_{max}) were as high as 83 dB and 70 dB during the daytime and nighttime, respectively. The daytime L_{eq} value is 65 dB. The daytime noise exposure measured at the southern property boundary was primarily due to activities on the PG&E construction site with a minor contribution from local and distant vehicular traffic.

Commercial/Light Industrial Facilities

The project site is directly adjacent to two commercial/light industrial operations to the west. One of these operations is California Hardwood Producer, Inc., while the other is a firewood storage/retail facility. Short-term reference noise level measurements at Sites 1 and 2 revealed average and maximum noise levels in the range of 52-54 dB and 58-66 dB, respectively, due to typical activities at the facilities. Measured noise sources included saws and mobile equipment. These sites are representative of the closest proposed noise-sensitive uses to the noise sources.

Regulatory Setting

The maximum exterior noise level acceptable for new residential uses affected by traffic noise sources is 60 dB L_{dn} , according to the *Auburn/Bowman Community Plan*. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are 45 dB L_{dn} or less, regardless of exterior noise levels.

The Community Plan establishes a maximum interior noise exposure level of 45dB L_{dn} and an exterior noise level criterion of 60 dB L_{dn} or less within the property line of residential and commercial land uses. This is considered to be the normally acceptable criterion and may be adjusted upward (typically 60-65 dB L_{dn} , or 70 dB L_{dn} for train noise) based on compliance with the interior noise-exposure criterion and the County's discretion.

The Community Plan also addresses noise exposure from non-transportation sources for new noise sensitive projects. Daytime noise (between the hours of 7am and 10pm) is limited to 50 dB L_{eq} and 70 dB L_{max} . Nighttime levels (between the hours of 10pm and 7 am) are limited to 45 dB L_{eq} and 65 dB L_{max} .

The following are goals and policies from the *Auburn/Bowman Community Plan* that are relevant to the Project's noise issues.

COMMUNITY DEVELOPMENT ELEMENT

Policy A3q Discourage the appearance of creating walled-off communities such as is done through the use of sound walls along roadways where noise impacts can be appropriately mitigated in an alternative way.

NOISE ELEMENT

Goal F2d To encourage the application of state of the art land use planning methodologies in areas of potential noise conflicts.

Policy F3a New development of noise-sensitive uses shall not be allowed where the noise level due to nontransportation noise sources will exceed the noise level standards of Table 14 as measured immediately within the property line of the new development, unless effective noise mitigation measures have been incorporated in the development design to achieve the standards specified in Table 14.

Policy F3h Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 14 at existing or planned noise sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. (Requirements for the content of an acoustical analysis are given by Table 15.)

Methodology

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD 77 108) was used to predict Project traffic noise levels. The FHWA model is the analytical method currently favored for traffic noise prediction by most State and local agencies, including the California Department of Transportation (Caltrans). The model uses the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, which produce noise generation rates that vary according to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

Traffic volumes for existing conditions were obtained from the Traffic Impact Study prepared to support this EIR. For more information on methodology, please refer to the Noise Appendix to this EIR, **Appendix F**.

Thresholds of Significance

Project impacts would be considered significant if the Project would:

- Expose persons to excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels;
- Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity;

- Place new noise-sensitive uses within the 60-dB CNEL roadway noise contours;
- Cause traffic noise to exceed 60-dB CNEL at existing noise-sensitive land uses;
- Increase traffic noise levels by more than three dB; or,
- Exceed the standards of *Placer County General Plan Noise Element* or the *Auburn-Bowman Community Plan* at noise-sensitive uses.

Environmental Impact and Mitigation Measures

Impact N-1 Construction Noise

During the construction phases of the Project, noise from construction equipment would add to the existing noise environment in the immediate Project vicinity. Sensitive noise receivers located to the north and east of the Project site have the greatest potential to be affected by Project-related construction noise. As shown in **Table 3.7-3**, activities involved in Project construction would generate maximum noise levels ranging from 85 to 88 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours as allowed in the *Placer County General Plan*. Nonetheless, residents living north and east would be affected by this noise.

Noise would also be generated during the construction phase by increased truck traffic on local area roadways. Trucks used to transport heavy materials and equipment to and from the construction site would create noise in the Project vicinity along area roadways. Although the increase in noise would be temporary and would occur during daytime working hours, this is considered a **potentially significant** impact and requires mitigation.

**Table 3.7-3
Construction Equipment Noise Levels**

Type of Equipment	L _{max} dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: Bollard Acoustical Consultants, Inc., August 2005.

Mitigation Measure N-1

- **Construction noise emanating from any construction activities for which a Grading or Building Permit is required is prohibited on Sundays and Federal Holidays, and shall occur only occur: Monday through Friday, 6am to 8pm (during daylight savings); Monday through Friday, 7am to 8pm (during standard time); and Saturdays, 8am to 6pm.**
- **In addition, temporary signs 4' x 4' shall be located throughout the project, as determined by the DRC, at key intersections depicting the above construction hour limitations. Said signs shall include a toll free public information phone number where surrounding residents can report**

violations and the developer/builder will respond and resolve noise violations. This condition shall be included on the Improvement Plans and shown in the development notebook.

- **Construction activities shall conform to the following standards: (a) there shall be no start-up of machines or equipment, no delivery of materials or equipment, no cleaning of machines or equipment, and no servicing of equipment except during the permitted hours of construction identified above; (b) radios played at high volume, loud talking, and other forms of communication constituting a nuisance shall not be permitted; and, (c) there shall be no construction legal holidays.**
- **Noisy construction equipment shall not idle for more than 10 minutes.**
- **Construction equipment, including trucks used for construction, shall utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) in order to minimize construction noise impacts on nearby noise-sensitive uses and be maintained in good working order.**
- **Loaded trucks used in construction shall not travel at speeds higher than 25 miles per hour in the Project vicinity, shall avoid driving over bumps, and shall reduce speed while driving over bumps that cannot be avoided in order to reduce the incidence and intensity of vibration as experienced by adjacent residents.**

With the incorporation of the identified mitigation measures, the impact is considered **less than significant**.

Impact N-2 Mobile Noise Sources - Exposure of Proposed Noise Sensitive Land Uses to Noise in Excess of County Standards

Residences proposed for development on the Project site would be potentially exposed to excessive levels of noise from mobile sources, including traffic on S.R. 49 and Union Pacific railroad trains.

State Route 49 Noise

Short-term with Project traffic noise exposure from S.R. 49 is estimated to be approximately 70 dB L_{dn} at 100 feet from the center of the roadway. For this Project, the closest proposed residential property line will be approximately 420 feet from the center of S.R. 49. Assuming a standard noise level reduction of +/- 4.5 dB per halving/doubling of distance from the noise source, estimated future unmitigated traffic noise exposure from S.R. 49 would be approximately 63 dB L_{dn} at the closest proposed residential property line. However, the proposed Plaza development to the west and south of the Project site (see description below) would provide some acoustical shielding from traffic on S.R. 49. As described above, future, unmitigated exterior traffic noise exposure from SR 49 could be as high as 63 dB L_{dn} at first-floor receivers closest to the roadway. Future SR 49 noise exposure at second floor project buildings could be as high as 65 dB L_{dn} (2 dB higher than at ground level) given that there would be reduced ground absorption at these locations and any property line

noise barrier would provide little noise mitigation at elevated facades. This exterior noise level is a **potentially significant** impact that requires mitigation.

Typical residential construction, like the existing homes in the project vicinity, is expected to provide no less than 25 dB of exterior-to-interior noise level reduction for transportation and most other exterior noise sources. This assumes that exterior windows and door are closed. Given a worst-case exterior traffic noise exposure level of 65 dB L_{dn} , interior traffic noise exposure may be as high as 40 dB L_{dn} . This level does not exceed the Community Plan interior noise exposure criterion. Therefore, no noise-mitigating building construction improvements would be required. The potential impact is **less than significant**.

Union Pacific Railroad Noise

Measurements of existing railroad noise in the Project vicinity yielded a total of five daytime operations and three nighttime operations producing an unmitigated noise exposure of 68 dB L_{dn} at 120 feet from the centerline of the tracks. No future operation data is available for the UPRR adjacent to the Project site. However, it is not expected that operations on this section of track would change significantly within the foreseeable future.

The closest proposed residential property to the UPRR tracks would be approximately 175 feet away. Assuming standard noise attenuation of +/- 4.5 dB per halving/doubling of distance from the source, estimated unmitigated Railroad noise exposure at the closest proposed residential property line would be approximately 65 dB L_{dn} . This exceeds the applicable 60 dB L_{dn} “normally acceptable” exterior noise exposure criterion. Unmitigated train noise exposure at the closest proposed first floor residential building facades may be as high as 65 dB L_{dn} . Second-floor building facades facing the tracks may experience train noise levels as high as 67 dB L_{dn} (+2 dB higher than at the first-floor) given the reduced effect of ground attenuation at elevated receiver locations.

Assuming a minimum 25 dB exterior-to-interior noise level reduction for the closest project homes, interior train noise exposure would not be expected to exceed 42 dB L_{dn} . This exposure does not exceed the Community Plan’s 45 dB L_{dn} limit. Therefore, no noise mitigating construction improvements are warranted for project homes adjacent to the UPRR tracks. The projected exterior noise level is **potentially significant** and requires mitigation.

This is a **potentially significant** impact that requires mitigation.

Mitigation Measure N-2a

A solid noise wall (e.g. block) measuring no less than six feet in height above existing Project grade is required at select locations along the western and northern borders of the Project site facing S.R. 49 and the Union Pacific railroad tracks (see Figure 3.7-2 for location of recommended noise barriers). This barrier will also sufficiently mitigate noise from the hardwood and firewood facility.

Mitigation Measure N-2b

In order to ensure the ongoing function of the required sound walls, one of the following is required: (1) In order for the Homeowners' Association to provide maintenance of the required sound walls on-site, the Project shall dedicate a minimum eight-foot wide ingress-egress access easement on one side of the sound wall along each portion of the sound wall that is not accessible through a public right-of-way already included as part of the Project; or, (2) The homeowners association with covenants, codes, and restrictions (CC&Rs) or any other mechanism acceptable to the County established in conjunction with the Project shall be responsible for maintenance of the required sound walls. (This mitigation measure applies to Impact N-3, as well.)

The potential impact is **less than significant** following mitigation.

Impact N-3 Stationary Noise Sources - Exposure of Proposed Noise Sensitive Land Uses to Noise in Excess of County Standards

Residences proposed for development on the Project site would be potentially exposed to excessive levels of noise from nearby stationary sources, including the PG&E construction yard, proposed commercial development to the west, and existing commercial/light industrial development to the west. Potential impact is summarized in Table 3.7-4.

**Table 3.7-4
Projected Stationary Noise**

	Auburn Bowman CP Standards	Highest Observed at PG&E Corporation Yard (Site B)
Daytime Hourly L_{eq} , dB	50	65 (+15)
Nighttime Hourly L_{eq} , dB	45	48 (+3)
Daytime Maximum Level, dB	70	83 (+13)
Nighttime Maximum Level, dB	65	70 (+5)

Daytime is 7 a.m. to 10 p.m.
Nighttime is 10 p.m. to 7 a.m.

Value in () is dB over standard

PG&E Construction Yard Noise

Maximum existing ambient noise exposure in the vicinity of the closest proposed noise-sensitive land uses to the PG&E construction yard was recorded to be approximately 65 dB L_{eq} and 83 dB L_{max} during daytime hours, and 49 dB L_{eq} and 71 dB L_{max} during nighttime hours. This exposure is 13-15 dB and 4-6 dB higher than the applicable daytime and nighttime exterior noise exposure standards, respectively. In addition, interior noise exposure within second-floor rooms adjacent to the PG&E operations could be as high as 42 dB L_{eq} and 60 dB L_{max} during daytime hours, and 26 dB L_{eq} and 48 dB L_{max} during nighttime hours. This impact is considered to be **potentially significant**.

Since the yard is used by several different PG&E departments and the nature of the yard's use can vary from day to day, the noise measurement data collected at Site B for this EIR likely accurately represents typical activity on the PG&E construction yard. A noise barrier performance analysis was completed to determine the height of the noise barrier required to meet the established 50 dB daytime Hourly L_{eq} exterior noise exposure standard at the closest proposed homes to the north and west of the existing PG&E construction yard. A standard six foot noise barrier would provide approximately five dB of noise reduction, reducing expected worst-case PG&E noise exposure at the closest proposed homes to 60 dB Hourly L_{eq} and 78 dB L_{max} during daytime hours, and 44 dB L_{eq} and 66 dB L_{max} during nighttime hours. This is a **potentially significant** impact that requires mitigation.

A six-foot high noise barrier along the shared project and PG&E property line would likely provide very little noise attenuation at upper-floor residential building facades facing the PG&E facility. In addition, reduced ground attenuation at elevated receivers may produce slightly higher noise levels than experienced at ground-floor elevations. Therefore, PG&E-related noise exposure at second-floor building facades facing the construction yard could be as high as 67 dB L_{eq} and 85 dB L_{max} during daytime hours, and 51 dB L_{eq} and 73 dB L_{max} during the nighttime hours, based on the ambient noise level data measured at Site B.

Assuming a 25 dB exterior-to-interior noise level reduction for the closest second-floor project homes to the PG&E construction yard, interior noise exposure could be as-high-as 42 dB L_{eq} and 60 dB L_{max} during daytime hours, and 26 dB L_{eq} and 48 dB L_{max} during nighttime hours. These levels are assumed to be approximately 7 dB higher than those within first-floor project rooms due to the ground attenuation offset and the ineffectiveness of the recommended 6-foot high property line masonry wall.

Interior noise exposure within second-floor project rooms adjacent to the PG&E construction yard could be mitigated by as much as 5 dB with the installation of acoustically-rated windows at building facades with line-of-sight to the noise source.

Commercial/Light Industrial Noise

Noise exposure from the existing hardwood and firewood facilities to the west of the Project site is between 52 and 54 dB L_{eq} and 58-66 dB L_{max} . The measurement locations are representative of the closest proposed residential property lines to the noise sources. It is expected that noise exposure from these existing facilities would exceed the established 50 dB L_{eq} exterior daytime noise exposure criterion. These facilities are assumed to not operate during nighttime hours. It is expected that a 6-foot high noise barrier recommended for SR 49 traffic noise mitigation will provide adequate noise insulation from the existing commercial/light industrial operations to the west. Potential noise from the existing commercial/light industrial uses to the west of the project homes could produce interior noise exposure at second-floor rooms as high as 31 dB L_{eq} and 43 dB L_{max} . These levels assume no mitigation from the recommended property line noise barriers and a +2 dB increase in noise exposure due to reduced ground attenuation.

Exterior noise levels are expected to be **potentially significant** and require mitigation.

Proposed Commercial Development Noise

The proposed commercial development (The Plaza) would be located to the southwest of the Project site. Noise sources associated with The Plaza that could impact the proposed Project may include rooftop mechanical systems (HVAC), heavy truck movements, and loading dock activities. It is not yet known what retailers would occupy the development, and information such as truck operations, hours of operation, and HVAC design and usage are not known. Based on the distance between proposed Plaza Building A and the closest proposed Project residences (approximately 250 feet), noise exposure from the proposed commercial development could be adequately mitigated using noise barriers of typical height and design. It is anticipated that the proposed Plaza development would include mitigation to address noise impacts and would not adversely impact the proposed Project residences. However, without more detailed information about this future proposed project, the impact cannot be quantified. The impact is considered to be **potentially significant** impact and requires mitigation.

Mitigation Measure N-3a

A solid noise wall (e.g. block) measuring no less than six feet in height above existing Project grade shall be constructed along the portions of the south and east property boundary near the PG&E construction yard. This barrier is anticipated to provide approximately five dB noise level reduction, thus reducing expected worst-case hourly noise exposure to 60 dB L_{eq} or less. In addition, the Project developer shall disclose the potential for moderate noise exposure at all proposed homes directly adjacent to the PG&E construction yard (see Figure 3.7-2 for location of recommended noise barriers).

Mitigation Measure N-3b

A detailed acoustical analysis shall be prepared for the proposed commercial development (The Plaza) to determine appropriate noise-mitigating construction once detailed information pertaining to this Project is known. This study shall include analysis of the impacts of the operation of the Project, as well as the potential shielding effects of the Plaza project for proposed on-site homes relative to S.R. 49. The acoustical analysis would be completed to ensure that noise exposure from the commercial development complies with the applicable noise criteria at the closest project homes.

Mitigation Measure N-3c

The project developer shall incorporate sound transmission class (STC) 35 or higher windows at second-floor building facades with line-of-sight to the PG&E construction yard. This construction improvement should be completed at the proposed homes directly adjacent to the construction yard.

With the incorporation of the identified mitigation measures, the impacts related to noise sources from the proposed commercial and the existing commercial/industrial uses will be **less than significant**.

While the above mitigation measures will partially mitigate for the noise effects of the PG&E construction yard, the noise from this source on the Project site will likely still exceed the daytime

Leq standards by at least 10 dB and nighttime L_{eq} standards by 15 dB. The noise impacts on the Project of the PG&E construction yard are therefore **significant and unavoidable**.

Impact N-4 Cause Traffic Noise to Exceed 60 dB CNEL at Existing Noise-Sensitive Land Uses

To assess noise impacts due to Project-related traffic increases on the local roadway network, traffic noise levels were predicted at a representative distance (100 feet from the center of S.R. 49 and 75 feet from the center of all other study roadways) for the Short-Term with Project and Cumulative with Project conditions. Predicted traffic noise levels are presented in **Table 3.7-5**.

Table 3.7-5
Predicted Traffic Noise Levels
100 Feet From S.R. 49 And 75 Feet From All Other Study Roadways

L_{dnr} dB (change w/ respect to No Project condition, dB)					
Roadway	Segment	Short-Term + Project w/o Connection	Short-Term + Project w/ Connection	Cumulative (2025) + Project w/o Connection	Cumulative (2025) + Project w/ Connection
S.R. 49	North of New Airport Road	70 (0)	70 (0)	71 (0)	71 (0)
	New Airport Road – Hulbert Way	70 (0)	70 (0)	72 (0)	72 (0)
	Hulbert Way – Luther Road	70 (0)	70 (0)	72 (0)	72 (0)
	South of Luther Road	70 (0)	70 (0)	71 (0)	71 (0)
Luther Road	West of S.R. 49	56 (0)	56 (0)	56 (0)	56 (0)
	S.R. 49 – Canal Street	62 (0)	61 (-1)	64 (0)	64 (0)
	Canal Street – Taylor Lane	61 (0)	61 (0)	63 (0)	63 (0)
	Taylor Lane – Dairy Road	62 (+1)	62 (+1)	64 (0)	64 (0)
	East of Dairy Road	61 (0)	61 (0)	63 (0)	63 (0)
Canal Street	North of Project Access	53 (0)	53 (0)	56 (0)	56 (0)
	Project Access – Luther Road	55 (+2)	52 (-1)	58 (+2)	54 (-2)
	South of Luther Road	43 (0)	43 (0)	51 (0)	51 (0)

Source: FHWA-RD-77-108 with inputs from Omni-Means and Bollard Acoustical Consultants, Inc.

Implementation of the proposed Project would result in increased traffic on existing local area roadways. As shown in the **Table 3.7-5**, Project-related traffic noise increases relative to no-Project levels would be approximately -2 dB to + 0.2 dB. This potential noise exposure increase due to the Project does not exceed the significance criterion established for the proposed Project. The impact is considered **less than significant**. No mitigation is required.

Notes and References

- ¹ U.S. Department of Transportation Federal Highway Administration. *Highway Traffic Noise Analysis and Abatement Policy and Guidance*. 1995